

1 **CLAIMS**

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3 1. A programming interface embodied on one or more computer  
4 readable media, comprising:

5 a first group of services related to re-usable user interface controls;

6 a second group of services related to user interface dialogs and user  
7 interface wizards;

8 a third group of services related to extending the user interface  
9 functionality; and

10 a fourth group of services related to extending functionality of a desktop of  
11 the user interface.

12  
13 2. A programming interface as recited in claim 1, wherein the first  
14 group of services includes:

15 a first control that encapsulates a storage user experience;

16 a second control that allows an item to be displayed in an application-  
17 defined manner;

18 a third control that allows items to be added to a sidebar of the desktop;

19 a fourth control that allows items to be added to a list; and

20 a fifth control that allows preview images of items to be displayed.

21  
22 3. A programming interface as recited in claim 1, wherein the second  
23 group of services includes:

24 a first dialog to allow files and folders to be opened and saved;

25 a first wizard to allow optical discs to be written to; and

1 a second wizard to facilitate sending images by electronic mail.

2  
3 4. A programming interface as recited in claim 1, wherein the third  
4 group of services includes:

5 a first functionality to allow additions to context menus;

6 a second functionality to allow identification of application-defined  
7 thumbnails; and

8 a third functionality to allow calculations to be performed when displaying  
9 information regarding one or more files or folders.

10  
11 5. A programming interface as recited in claim 1, wherein the fourth  
12 group of services includes:

13 a first functionality to allow a sidebar to be displayed on the desktop; and

14 a second functionality to allow application-defined notifications to be  
15 displayed on the desktop.

16  
17 6. A system comprising:

18 means for exposing a first set of functions that enable re-usable controls of  
19 a user interface;

20 means for exposing a second set of functions that enable re-usable dialogs  
21 of the user interface and re-usable wizards of the user interface; and

22 means for exposing a third set of functions that enable extending  
23 functionality of a desktop of the user interface.

1           7.     A system as recited in claim 6, further comprising:  
2           means for exposing a fourth set of functions that enable extending  
3 functionality of the user interface.

4  
5           8.     A system as recited in claim 7, wherein the means for exposing the  
6 fourth set of functions comprises:

7           means for exposing one or more functions to allow additions to context  
8 menus;

9           means for exposing one or more functions to allow identification of  
10 application-defined thumbnails; and

11          means for exposing one or more functions to allow calculations to be  
12 performed when displaying information regarding one or more files or folders.

13  
14          9.     A system as recited in claim 6, wherein the means for exposing the  
15 first set of functions comprises:

16          means for exposing one or more functions that encapsulate a storage user  
17 experience;

18          means for exposing one or more functions that allow an item to be  
19 displayed in an application-defined manner;

20          means for exposing one or more functions that allow items to be added to a  
21 sidebar of the desktop;

22          means for exposing one or more functions that allow items to be added to a  
23 list; and

24          means for exposing one or more functions that allow preview images of  
25 items to be displayed.

1  
2       **10.**     A system as recited in claim 6, wherein the means for exposing the  
3 second set of functions comprises:

4           means for exposing one or more functions that allow files and folders to be  
5 opened and saved;

6           means for exposing one or more functions that allow optical discs to be  
7 written to; and

8           means for exposing one or more functions that allow images to be sent by  
9 electronic mail to be re-sized.

10  
11       **11.**     A system as recited in claim 6, wherein the means for exposing the  
12 third set of functions comprises:

13           means for exposing one or more functions that allow a sidebar to be  
14 displayed on the desktop; and

15           means for exposing one or more functions that allow application-defined  
16 notifications to be displayed on the desktop.

17  
18       **12.**     A method of organizing a set of types for a user interface into a  
19 hierarchical namespace comprising:

20           creating a plurality of groups from the set of types, each group containing at  
21 least one type that exposes logically related functionality;

22           assigning a name to each group in the plurality, wherein one of the groups  
23 in the plurality includes functionality related to re-useable user interface controls,  
24 and wherein another of the groups in the plurality includes functionality related to  
25 re-useable user interface dialogs and re-useable user interface wizards; and

1 selecting a top level identifier and prefixing the name of each group with  
2 the top level identifier so that the types in each group are referenced by a  
3 hierarchical name that includes the selected top level identifier prefixed to the  
4 name of the group containing the type.

5  
6 **13.** A method as recited in claim 12, wherein yet another of the groups  
7 in the plurality includes functionality related to extending user interface  
8 functionality.

9  
10 **14.** A method as recited in claim 13, wherein the functionality related to  
11 extending user interface functionality comprises:

12 a first functionality to allow additions to context menus;  
13 a second functionality to allow application-identification of thumbnails; and  
14 a third functionality to allow calculations to be performed when displaying  
15 information regarding one or more files or folders.

16  
17 **15.** A method as recited in claim 13, wherein the assigning comprises  
18 assigning a name of Addin to the group that includes functionality related to  
19 extending user interface functionality so that the hierarchical name for the group  
20 that includes functionality related to extending user interface functionality is  
21 System.Windows.Explorer.Addin.

1           **16.**     A method as recited in claim 12, wherein yet another of the groups  
2 in the plurality includes functionality related to extending functionality of a user  
3 interface desktop.

4  
5           **17.**     A method as recited in claim 16, wherein the functionality related to  
6 extending functionality of a user interface desktop comprises:

7                 a first functionality to allow a sidebar to be displayed on the desktop; and

8                 a second functionality to allow application-defined notifications to be  
9 displayed on the desktop.

10  
11           **18.**     A method as recited in claim 16, wherein the assigning comprises  
12 assigning a name of Desktop to the group that includes functionality related to  
13 extending functionality of a user interface desktop so that the hierarchical name  
14 for the group that includes functionality related to extending functionality of a user  
15 interface desktop is System.Windows.Explorer.Desktop.

1           **19.**     A method as recited in claim 12, wherein the assigning comprises  
2 assigning a name of Controls to the group that includes functionality related to re-  
3 usable user interface controls so that the hierarchical name for the group that  
4 includes functionality related to re-usable user interface controls is  
5 System.Windows.Explorer.Controls, and assigning a name of Dialogs to the group  
6 that includes functionality related to re-useable user interface dialogs and re-  
7 useable user interface wizards so that the hierarchical name of the group that  
8 includes functionality related to re-useable user interface dialogs and re-useable  
9 user interface wizards is System.Windows.Explorer.Dialogs.

10  
11           **20.**     A method as recited in claim 12, wherein the functionality related to  
12 re-useable user interface controls comprises:

13           a first control that encapsulates a storage user experience;  
14           a second control that allows an item to be displayed in an application-  
15 defined manner;  
16           a third control that allows items to be added to a list; and  
17           a fourth control that allows preview images of items to be displayed.

18  
19           **21.**     A method as recited in claim 12, wherein the functionality related to  
20 re-useable user interface dialogs and re-useable user interface wizards comprises:

21           a first dialog to allow files and folders to be opened and saved;  
22           a first wizard to allow optical discs to be written to; and  
23           a second wizard to facilitate sending images by electronic mail.

1           **22.**    A method, comprising:  
2           creating a first namespace with functions that enable extending  
3           functionality of a user interface; and  
4           creating a second namespace with functions that enable extending  
5           functionality of a desktop of the user interface.

6  
7           **23.**    A method as recited in claim 22, further comprising:  
8           creating a third namespace with functions that enable re-usable user  
9           interface controls.

10  
11          **24.**    A method as recited in claim 23, wherein the third namespace  
12          includes:

13           a first control that encapsulates a storage user experience;  
14           a second control that allows an item to be displayed in an application-  
15          defined manner;  
16           a third control that allows items to be added to a sidebar of the desktop;  
17           a fourth control that allows items to be added to a list; and  
18           a fifth control that allows preview images of items to be displayed.

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20          **25.**    A method as recited in claim 22, further comprising:  
21          creating a third namespace with functions that enable user interface dialogs  
22          and user interface wizards;



1           26.    A method as recited in claim 25, wherein the third namespace  
2 includes:

- 3           a first dialog to allow files and folders to be opened and saved;
- 4           a first wizard to allow optical discs to be written to; and
- 5           a second wizard to facilitate sending images by electronic mail.

6  
7           27.    A method as recited in claim 22, wherein the first namespace  
8 includes:

- 9           a first functionality to allow additions to context menus;
- 10          a second functionality to allow identification of application-defined
- 11 thumbnails; and
- 12          a third functionality to allow calculations to be performed when displaying
- 13 information regarding one or more files or folders.

14  
15          28.    A method as recited in claim 22, wherein the second namespace  
16 includes:

- 17          a first functionality to allow a sidebar to be displayed on the desktop; and
- 18          a second functionality to allow application-defined notifications to be
- 19 displayed on the desktop.

20  
21          29.    A method comprising:  
22          calling one or more first functions to use controls of a user interface; and  
23          calling one or more second functions to extend functionality of the user  
24 interface.

1           **30.**     A method as recited in claim 29, further comprising:  
2           calling one or more third functions to extend functionality of a desktop of  
3           the user interface.

4  
5           **31.**     A method as recited in claim 30, wherein the functions to extend  
6           functionality of the desktop include:

7           one or more functions to allow a sidebar to be displayed on the desktop;  
8           and

9           one or more functions to allow application-defined notifications to be  
10          displayed on the desktop.

11  
12          **32.**     A method as recited in claim 29, further comprising:  
13          calling one or more third functions to use dialogs and wizards of the user  
14          interface.

15  
16          **33.**     A method as recited in claim 32, wherein the functions to use  
17          dialogs and wizards of the user interface include:

18          one or more functions to use a dialog to allow files and folders to be opened  
19          and saved;

20          one or more functions to use a wizard to allow optical discs to be written to;  
21          and

22          one or more functions to use another wizard to facilitate sending images by  
23          electronic mail.

1           **34.**    A method as recited in claim 29, wherein the functions to use  
2 controls of the user interface include:

3               one or more functions that encapsulate a storage user experience;  
4               one or more functions that allow an item to be displayed in an application-  
5 defined manner;  
6               one or more functions that allow items to be added to a list; and  
7               one or more functions that allow preview images of items to be displayed.

8  
9           **35.**    A method as recited in claim 29, wherein the functions to extend  
10 functionality of the user interface include:

11               one or more functions to allow additions to context menus;  
12               one or more functions to allow identification of application-defined  
13 thumbnails; and  
14               one or more functions to allow calculations to be performed when  
15 displaying information regarding one or more files or folders.

16  
17           **36.**    A method, comprising:  
18               receiving one or more calls to one or more first functions to use controls of  
19 a user interface; and  
20               receiving one or more calls to one or more second functions to extend  
21 functionality of a desktop of the user interface.

22  
23           **37.**    A method as recited in claim 36, further comprising:  
24               receiving one or more calls to one or more third functions to extend  
25 functionality of the user interface.

1  
2       **38.**    A method as recited in claim 37, wherein the functions to extend  
3 functionality of the user interface include:

4           one or more functions to allow additions to context menus;

5           one or more functions to allow identification of application-defined  
6 thumbnails; and

7           one or more functions to allow calculations to be performed when  
8 displaying information regarding one or more files or folders.

9  
10       **39.**    A method as recited in claim 36, further comprising:

11          receiving one or more calls to one or more third functions to use dialogs  
12 and wizards of the user interface.

13  
14       **40.**    A method as recited in claim 39, wherein the functions to use  
15 dialogs and wizards of the user interface include:

16          one or more functions to use a dialog to allow files and folders to be opened  
17 and saved;

18          one or more functions to use a wizard to allow optical discs to be written to;  
19 and

20          one or more functions to use another wizard to facilitate sending images by  
21 electronic mail.

22  
23       **41.**    A method as recited in claim 36, wherein the functions to use  
24 controls of the user interface include:

25          one or more functions that encapsulate a storage user experience;

1           one or more functions that allow an item to be displayed in an application-  
2 defined manner;

3           one or more functions that allow items to be added to a sidebar of the  
4 desktop;

5           one or more functions that allow items to be added to a list; and

6           one or more functions that allow preview images of items to be displayed.

7  
8           **42.**    A method as recited in claim 36, wherein the functions to extend  
9 functionality of the desktop include:

10           one or more functions to allow a sidebar to be displayed on the desktop;  
11 and

12           one or more functions to allow application-defined notifications to be  
13 displayed on the desktop.